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NUS CORPORATION
SUPERFUND DIVISION

// ERNAL CORRESPONDENCE

C-34-8-5-71

TO: D. E. MACINTYRE DATE: SEPTEMBER 11, 1985

FROM: G. D. GARDNER

SUBJECT: SUMMARY OF MEETING WITH TYBOUTS CORNER LANDFILL PRPs ON AUGUST 1, 1985 NUS PROJECT [redacted] COPIES: D. SENOVICH D. R. BRENNEMAN

The meeting was held on August 1, 1985 at 11:00 a.m. in U.S. EPA Region III offices, Philadelphia, Pennsylvania between U.S. EPA, NUS Corporation, and various PRPs for the Tybouts Corner Landfill Site. The purpose of the meeting was to discuss PRP questions with respect to the NUS/EPA feasibility study of remedial alternatives; and to discuss the remedial action alternatives proposed by the PRPs in a letter from Schmeltzer, Aptaker and Sheppard dated June 24, 1985. Persons attending included those listed on the attached sign-in sheet.

Judy Dorsey, Regional Counsel for EPA, initiated the meeting with introductions. George Gardner initiated the technical discussions by reviewing the answers to questions that were fielded during the conference telephone call between Gardner and EPA Regional Counsel and the PRPs on Monday, July 29, 1985. Gardner reviewed corrections to be made to the RI/FS report which included corrections to permeability stated on pages 9-9, 9-11, and 11-29. In answer to a question asked Monday regarding the source of NUS's claim that the local sewer lines had a moratorium on new tie-ins; as well as the new sewer lines could not accept flows greater than 200,000 gallons per day, met with open ridicule from the county representatives in the meeting. Gardner had responded to the question with the answer that the New Castle County Sanitary Authority had informed NUS of this when NUS was making inquiries regarding Tybouts and another site nearby. The persons contacted were a Rick and a Mr. Jamison; although original attemps were made to contact a Mr. Doud. Gardner had obtained this information from Kim Turnbull of NUS who is the person who made the contacts. The county responded that there is no such thing as a New Castle County Sanitary Authority and that Rick was a draftsman and Mr. Jamison is with the Department of Transportation. Gardner gave the phone numbers that were used by Turnbull for the inquiries and the county laughingly responded that these were the numbers for the Department of Transportation. County representatives at the meeting implicated that NUS was not very thorough in their investigation of this option, and that if the proper people had been contacted, a waiver of permit might have been suggested. Gardner indicated that the evaluation of alternatives stage of the feasibility study does not get into detailed design, but is merely assess the technical and cost of each remedial alternative relative to each other so that a rational selection can be obtained.

The main discussions focused on: silt cap; and a subsurface drain proposed by the PRPs. The silt cap is favored by the PRPs because of its relatively low expense. Gardner explained that analysis of the various caps led to the following conclusions:

- 10^{-7} cm per second cap at two feet thick equals about 3,000 gallons per day leachate production which is 7 percent of the currently produced amount.
- 10^{-6} cm per second cap at two feet thick (sealed cap) will produce an estimated 26,000 gallons per day leachate, which is about 60 percent of the present leachate production due to infiltration.
- 10^{-5} cm per second cap at three feet thick will produce about 42,000 gallons per day leachate production which is about 96 percent of the present estimated leachate production from infiltration.
- The RCRA cap may produce about 870 gallons per day leachate which is about 2 percent of the present production. The RCRA cap was assumed at 2 percent and was not analyzed using a computer model.
- The present site conditions produce about 43,700 gallons per day of leachate. On this basis, the 10^{-6} cm per second, two feet thick cap still allows 60 percent of the leachate production to occur at the site, which may not effectively reduce contamination to the base of the landfill.

PRP lawyers requested that EPA determine exactly how much water would be acceptable within the landfill. Judy Dorsey indicated that they would have to get advise from the RCRA branch people. The question of how dry is dry will have to be answered. The PRPs are looking primarily for a performance guideline from EPA so that they can adjust a design to fit that guideline. Judy Dorsey indicated they would have to obtain that from RCRA and possibly headquarters. Judy arranged a meeting next week with the PRPs to discuss this issue as well as the legal court action that was currently underway.

PRPs were concerned with the designs NUS proposed such as the 20-foot wide subsurface drain. Gardner indicated that the subsurface drain shown on the drawing is not 20-feet, but more like 10-feet. Cost estimating was based on a 10-foot wide drain. The computer analysis assumed a 20-foot wide drain simply for numerical modeling reasons. PRPs asked why a 10-foot wide drain was required. Gardner indicated because of construction implementability considerations such as entering the trench with equipment. PRPs insisted that a narrower trench could be used. EPA and NUS indicated that any proposed

trench that would achieve the goals of dewatering the landfill would be acceptable if the PRPs wished to propose such a drain. PRPs consultants indicated a box trench method could be utilized. Gardner indicated this was possible, however health and safety levels of protection within the box trench might preclude sending workers into the trench.

The major issue of concern and debate was the subsurface drain alternative proposed by the PRPs in the Schmeltzer, Aptaker and Sheppard letter. Gardner stated that the apparent design of the trench ignored the existence of the low permeability Merchantville formation as separating the groundwater and the main landfill and Columbia formation from the Potomac formation. John Isbister from Lawler, Matusky and Skelly Engineers (LMS), indicated they do not agree with the NUS interpretation and believe that a better hydraulic connection exists that would allow the subsurface drain to work as stated in their letter. Gardner also indicated the errors in geology shown on the cross section that accompanied the letter and the alternative, and that the drain was attempting to lower the groundwater table below sealevel. John Isbister indicated that this was an error in drafting. It was agreed that LMS would review additional data with NUS and attempt to come to a conclusion regarding which scheme was correct. Gardner will arrange the meetings in a phone call with Isbister tomorrow (Friday, August 2, 1985). Gardner suggested to Roy Schrock that the EPA geologist, Marilyn Plitnik, become more actively involved at this point since the agency may be confronted with a technical impasse.

Roy Schrock indicated to Gardner that Vince D'Anno of the county contacted Roy the day after the community meeting where the county accused NUS of not talking to the Delaware geological survey; and Gardner refuted that and indicated the instances and the participation of the Delaware geological survey. Schrock said D'Anno called Robert Jordan of the survey the day after the community meeting, and Jordan denied meeting with NUS or ever having anyone work on the project. Gardner told Schrock that Gardner has meeting notes from the meeting, as well as Robert Jordan's personal copy of a publication that Jordan lent to him at that meeting to assist in conducting the heavy mineral analysis. In addition, Ken Woodruff, Assistant State Geologist, conducted the geophysical surveys at the site. Schrock indicated that Jordan did say that no one from the geological survey ever worked on the Tybouts site. Gardner said that he was explaining the relationship with DGS in the letter rebuttal of the letter submitted by New Castle County. In addition, Gardner commented that DGS was consulted regarding the stratigraphy at the site. NUS has continually kept the Department of Natural Resources and Environmental Control hydrogeologists informed of the technical occurrences at the site, as well as their consultant, ERM Associates, West Chester, Pennsylvania.

The final item discussed during the meeting was the requirement for pumping and treating the groundwater plumes. PRPs favor the Texaco Well option. EPA indicated that it would be a decision based primarily on meeting a RCRA requirement. If the Texaco Well pumping scheme could meet RCRA, then it may be a viable alternative.

Jim Duffield, consultant for the county, asked Gardner if he could obtain the estimates of lateral infiltration into the landfill. Gardner indicated NUS could provide these with the approval of Roy Schrock. John Isbister asked for copies of the computer data from the computer runs. Gardner indicated they could be provided with the approval of Roy Schrock. Roy Schrock approved sending these items to these individuals. Schrock indicated to Gardner that one possible approach to the possible technical impasse that may result from the differences in interpretation of the stratigraphy would be to allow the PRPs to build the cap and the trench as they desire, and monitor the results. Gardner indicated this would be fine if allowed under CERCLA and possibly under RCRA. Gardner indicated that the plume is moving so slowly that waiting to see what would happen would have no adverse impact as long as no drilling and pumping of the upper hydrologic zone within an unknown radius of the site were allowed. In addition, if the system does not work, as indicated by monitoring wells, then a mechanism will have to be established to implement a better remediation.

The meeting ended at about 3:00 p.m.

GDG/fjm

Attachment.